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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Bernard Moss et al.                      Art Unit : 1645  
Serial No. : 10/646,628                                  Examiner : R. Zeman  
Filed : August 22, 2003  
Title : MVA EXPRESSING MODIFIED HIV ENVELOPE, GAG, AND POL GENES

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REVOCATION AND NEW POWER OF ATTORNEY

Under 37 CFR §3.73(b) THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as Represented by the Secretary, Department of Health and Human Services, and as represented by the National Institutes of Health by authority of the Department of Health and Human Services, a government agency, certifies that they are the assignee of 100% of the right, title and interest of Bernard Moss, Linda Wyatt and Patricia Earl in the patent application identified above by virtue of:

☒ Assignment from Bernard Moss, Linda Wyatt and Patricia Earl, inventors of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel 014974, Frame 0687, on February 13, 2004 (copy enclosed).

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

June 1, 2005  
Date of Deposit

Carrie A. Amonte  
Signature

Carrie A. Amonte  
Typed or Printed Name of Person Signing Certificate

Applicant : Bernard Moss et al.  
Serial No. : 10/646,628  
Filed : August 22, 2003  
Page : 2 of 3

Attorney's Docket No.: 12804-027001

The undersigned, whose title is supplied below, is empowered to act on behalf of the assignee.

The undersigned, acting on behalf of the assignee, hereby revokes all powers of attorney previously granted in the application and appoints:

Anita L. Meiklejohn, Ph.D.  
Reg. No. 35,283  
FISH & RICHARDSON P.C.  
225 Franklin Street  
Boston, MA 02110-2804

with full power of substitution and revocation, to prosecute the application and to transact all business in the United States Patent and Trademark Office connected therewith.

All correspondence regarding the application should be sent to:

**PTO Customer Number: 26161**

Applicant : Bernard Moss et al.  
Serial No. : 10/646,628  
Filed : August 22, 2003  
Page : 3 of 3

Attorney's Docket No.: 12804-027001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

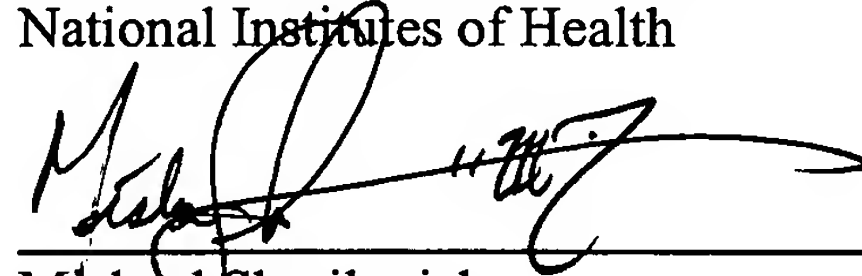
Respectfully submitted,

**UNITED STATES DEPARTMENT OF  
HEALTH AND HUMAN SERVICES**

For:

Office of Technology Transfer  
National Institutes of Health

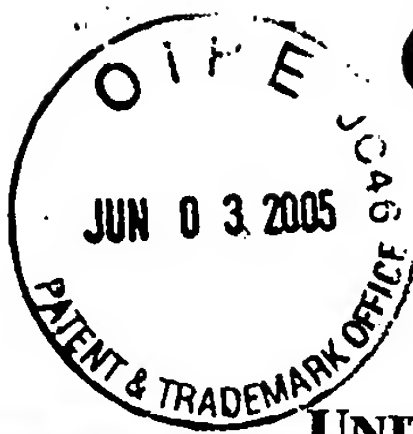
Date: May 17, 2005



Michael Shmilovich

Title: Technology Licensing Specialist

National Institutes of Health  
Office of Technology Transfer  
6011 Executive Blvd. Suite 325  
Rockville, MD 20852



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NWV

**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

AUGUST 11, 2004

PTAS

KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614



\*102670973A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/13/2004

REEL/FRAME: 014974/0687

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MOSS, BERNARD

DOC DATE: 02/02/2004

ASSIGNOR:

WYATT, LINDA

DOC DATE: 02/02/2004

ASSIGNOR:

EARL, PATRICIA

DOC DATE: 02/02/2004

ASSIGNEE:

GOVERNMENT OF THE UNITED STATES OF  
AMERICA, AS REPRESENTED BY THE  
SECRETARY, DEPARTMENT OF HEALTH  
AND HUMAN SERVICES  
6011 EXECUTIVE BLVD.  
SUITE 325  
ROCKVILLE, MARYLAND 20852-3804

014974/0687 PAGE 2

SERIAL NUMBER: 10646628

FILING DATE: 08/22/2003

PATENT NUMBER:

ISSUE DATE:

TITLE: MVA EXPRESSING MODIFIED HIV ENVELOPE, GAG, AND POL GENES

THERESA FREDERICK, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

Client Code: NIH211.001C1

RECO

02-18-2004

2-13-04



TO THE ASSISTANT COMMISSIONER FOR PAT.

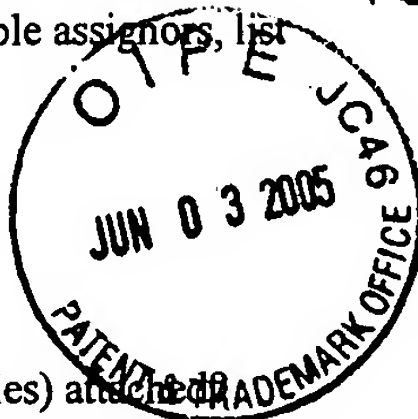
ents or copy thereof.

102670973

1. Name of conveying party(ies): (If multiple assignors, list numerically)

1. Bernard Moss
2. Linda Wyatt
3. Patricia Earl

Additional name(s) of conveying party(ies) attached?  
( ) Yes (X) No



2. Name and address of receiving party(ies):

Name: Government of the United States of America, as  
Represented by the Secretary, Department of Health and  
Human Services

Internal Address: Suite 325

Street Address: 6011 Executive Blvd.

City: Rockville State: Maryland ZIP: 20852-3804

Additional name(s) of receiving party(ies) attached?  
( ) Yes (X) No

3. Nature of conveyance:

(X) Assignment

4. Application number(s) or Patent number(s):

(X) Patent Application No.: 10/646,628  
Filing Date: August 22, 2003

Execution Date: (If multiple assignors, list execution  
dates in numerical order corresponding to numbers indicated in  
1 above)

1. February 2, 2004
2. February 2, 2004
3. February 2, 2004

Additional numbers attached? ( ) Yes (X) No

5. Name and address of party to whom correspondence  
concerning document should be mailed:

Name: Nancy W. Vensko  
KNOBBE, MARTENS, OLSON & BEAR, LLP  
Customer No. 20,995

Internal Address: Fourteenth Floor

Street Address: 2040 Main Street

City: Irvine State: CA ZIP: 92614

Attorney's Docket No.: NIH211.001C1

7. Total fee (37 CFR 1.21(h)): \$40

(X) Enclosed

(X) Authorized to be charged to deposit account if any  
additional fees are required, or to credit any overpayment

8. Deposit account number: 11-1410

Please charge this account for any additional fees which may be  
required, or credit any overpayment to this account.

6. Total number of applications and patents involved: 1

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the  
original document.

Nancy W. Vensko  
Name of Person Signing

Signature

Date

2/10/04

36,298  
Registration No.

Total number of pages including cover sheet, attachments and document: 5

Mail documents to be recorded with required cover sheet information to:

02/17/2004 LUMELLER 00000094 10646628

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Mail Stop Assignment Recordation Services  
Director, U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

OFFICE OF PUBLIC RECORDS  
2004 FEB 13 PM 3:52  
FINANCE SECTION

ASSIGNMENT

WHEREAS, we, Bernard Moss: 10301 Dickens Avenue, Bethesda, MD 20814; citizen: USA; Linda Wyatt: 11201 Huntover Drive, Rockville, MD 20852; citizen: USA; and Patricia Earl: 3520 Woodbine Street, Chevy Chase, MD 20815; citizen: USA; employees of the Department of Health and Human Services, have invented MVA EXPRESSING MODIFIED HIV ENVELOPE, GAG, AND POL GENES, for which we have made application for Letters Patent of the United States Serial No. 10/646,628 Filed August 22, 2003, which claims the benefit of International Application No. PCT/US02/06713 filed March 1, 2002, which claims the benefit of U.S. Provisional Application No. 60/274,434 filed March 8 2001;

WHEREAS, we are the applicants named in the above-identified application for Letters Patent;

WHEREAS, the conditions under which said invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096 to the entire right, title, and interest herein, both domestic and foreign; and

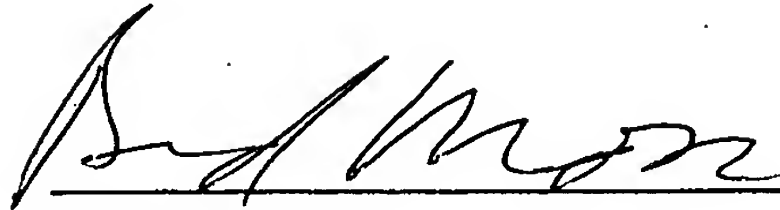
WHEREAS, the Government of the United States is desirous of acquiring all domestic and foreign right, title and interest in the above-mentioned invention described in the application for Letters Patent; and

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to the United States of America, as represented by the Secretary, Department of Health and Human Services, the full and exclusive rights in and to said invention in the U.S. and within each and every foreign country in which the Government elects to file and the entire right, title and interest in and to such applications, and any continuations, continuations-in-part, divisions, reissues or extensions thereof, and including priority rights as may be filed in the U.S. and foreign countries, and such Letters Patent as may be granted to be held by the Government to the end of the term for which the same would have been held by the inventors had this assignment not been made.

We further agree to make, execute and deliver to the Secretary, Department of Health and Human Services, upon request, any and all papers, documents, affidavits or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist the Government in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by the Government.

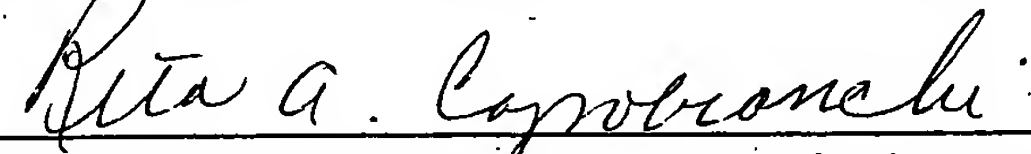
Client Code : NH211.001C1  
Serial No. : 10/646,628  
Filing Date : August 22, 2003

IN WITNESS WHEREOF, I hereunto set my hand and seal this 2 day of Feb, 2004

  
Bernard Moss

STATE OF Maryland  
COUNTY OF Montgomery ss.

On this 2ND day of February, 2004, before me, a Notary Public in and for the State and County aforesaid, personally appeared Bernard Moss, personally known to me or proven on the basis of satisfactory evidence to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be his/her free act and deed.

  
Notary Public in and for the aforesaid County and State

My Commission Expires: Feb. 1, 2006



Client Code : NIH211.001C1  
Serial No. : 10/646,628  
Filing Date : August 22, 2003

IN WITNESS WHEREOF, I hereunto set my hand and seal this 2 day of Feb, 2004

Linda Wyatt  
Linda Wyatt

STATE OF Maryland  
COUNTY OF Montgomery ss.

On this 2nd day of February, 2004, before me, a Notary Public in and for the State and County aforesaid, personally appeared Linda Wyatt, personally known to me or proven on the basis of satisfactory evidence to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be his/her free act and deed.

Rita A. Copronechi  
Notary Public in and for the aforesaid County and State

My Commission Expires: February 1, 2006

Client Code : NIH211.001C1  
Serial No. : 10/646,628  
Filing Date : August 22, 2003

IN WITNESS WHEREOF, I hereunto set my hand and seal this 2 day of Feb, 2004

Pat Earl  
Patricia Earl

STATE OF Maryland  
                    |  
                    | ss.  
COUNTY OF Montgomery

On this 2ND day of February, 2004, before me, a Notary Public in and for the State and County aforesaid, personally appeared Patricia Earl, personally known to me or proven on the basis of satisfactory evidence to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be his/her free act and deed.

Lita A. Coprobranchi  
Notary Public in and for the aforesaid County and State

My Commission Expires: Feb. 1, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Bernard Moss et al.

Art Unit : 1645

Serial No. : 10/646,628

Examiner : R. Zeman

Filed : August 22, 2003

Title : MVA EXPRESSING MODIFIED HIV ENVELOPE, GAG, AND POL GENES

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

REVOCATION AND NEW POWER OF ATTORNEY

Under 37 CFR §3.73(b), Emory University, a university, certifies that they are the assignee of 100% of the right, title and interest of Harriet L. Robinson in the patent application identified above by virtue of:

☒ Assignment from Harriet L. Robinson, an inventor of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel 014975, Frame 0742, on February 13, 2004 (copy enclosed).

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit

June 1, 2005

Signature

Carrie A. Amonte

Carrie A. Amonte

Typed or Printed Name of Person Signing Certificate

Applicant : Bernard Moss et al.  
Serial No. : 10/646,628  
Filed : August 22, 2003  
Page : 2 of 3

Attorney's Docket No.: 12804-027001

The undersigned, whose title is supplied below, is empowered to act on behalf of the assignee.

The undersigned, acting on behalf of the assignee, hereby revokes all powers of attorney previously granted in the application and appoints:

Anita L. Meiklejohn, Ph.D.  
Reg. No. 35,283  
FISH & RICHARDSON P.C.  
225 Franklin Street  
Boston, MA 02110-2804

with full power of substitution and revocation, to prosecute the application and to transact all business in the United States Patent and Trademark Office connected therewith.

All correspondence regarding the application should be sent to:

**PTO Customer Number: 26161**

Applicant : Bernard Moss et al.  
Serial No. : 10/646,628  
Filed : August 22, 2003  
Page : 3 of 3


Attorney's Docket No.: 12804-027001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Respectfully submitted,

**EMORY UNIVERSITY**

Date: 5.26.05

  
Todd T. Sherer, Ph.D.

Title: Assistant VP for Research & Director

Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906

NIH211.001C1 usg  
NWV



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

AUGUST 11, 2004

PTAS

KNOBBE, MARTENS, OLSON ET AL.  
NANCY W. VENSKO  
2040 MAIN STREET  
IRVINE, CA 92614



\*102670810A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/13/2004

REEL/FRAME: 014975/0742  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).  
DOCKET NUMBER: NIH211001C1

ASSIGNOR:

ROBINSON, HARRIET L.

DOC DATE: 01/16/2004

ASSIGNEE:

EMORY UNIVERSITY  
1380 SOUTH OXFORD ROAD  
ATLANTA, GEORGIA 30322

SERIAL NUMBER: 10646628

FILING DATE: 08/22/2003

PATENT NUMBER:

ISSUE DATE:

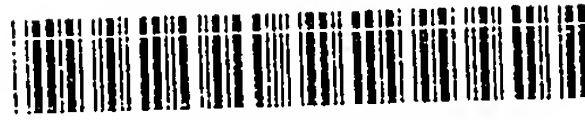
TITLE: MVA EXPRESSING MODIFIED HIV ENVELOPE, GAG, AND POL GENES

014975/0742 PAGE 2

VIOLET MCCOY, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

02-18-2004

2.13.04



TO THE ASSISTANT COMMISSIONER FOR PAT

ents or copy thereof.

102670810

1. Name of conveying party(ies): (If multiple assignors, list numerically)

Harriet L. Robinson

Additional name(s) of conveying party(ies) attached?

( ) Yes (X) No

2. Name and address of receiving party(ies):

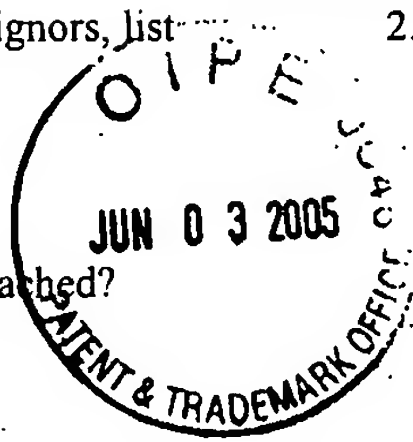
Name: Emory University

Street Address: 1380 South Oxford Road

City: Atlanta State: Georgia ZIP: 30322

Additional name(s) of receiving party(ies) attached?

( ) Yes (X) No



3. Nature of conveyance:

(X) Assignment

Execution Date: (If multiple assignors, list execution dates in numerical order corresponding to numbers indicated in 1 above) January 16, 2004

4. Application number(s) or Patent number(s):

(X) Patent Application No.: 10/646,628

Filing Date: August 22, 2003

Additional numbers attached? ( ) Yes (X) No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Nancy W. Vensko

KNOBBE, MARTENS, OLSON &amp; BEAR, LLP

Customer No. 20,995

Internal Address: Fourteenth Floor

Street Address: 2040 Main Street

City: Irvine State: CA ZIP: 92614

Attorney's Docket No.: NIH211.001C1

7. Total fee (37 CFR 1.21(h)): \$40

(X) Enclosed

(X) Authorized to be charged to deposit account if any additional fees are required, or to credit any overpayment

8. Deposit account number: 11-1410

Please charge this account for any additional fees which may be required, or credit any overpayment to this account.

6. Total number of applications and patents involved: 1

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original document.

Nancy W. Vensko

Name of Person Signing

Signature

Date

2/10/04

36,298

Registration No.

Total number of pages including cover sheet, attachments and document: 2

Mail documents to be recorded with required cover sheet information to:

Mail Stop Assignment Recordation Services  
Director, U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

RECORDPA

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020404

02/17/2004 LNUELLER 00000095 10646628

01 FC:8021

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OFFICE OF PATENT RECORDS  
2004 FEB 13 PM 3:52  
FINANCE SECTION



Application No.: 10/646,628  
Filing Date: August 22, 2003

PATENT  
Client Code: NIH211.001C1  
Page 1

### ASSIGNMENT

WHEREAS, I, Harriet L. Robinson, a USA citizen, residing at 1051 Mason Woods Drive, Atlanta, GA 30329, have invented certain new and useful improvements in a MVA EXPRESSING MODIFIED HIV ENVELOPE, GAG, AND POL GENES for which I have filed an application for Letters Patent in the United States Serial No. 10/646,628 filed August 22, 2003, which claims the benefit of International Application No. PCT/US02/06713 filed March 1, 2002, which claims the benefit of U.S. Provisional Application No. 60/274,434 filed March 8, 2001;

AND WHEREAS, Emory University (hereinafter "ASSIGNEE"), a Georgia nonprofit corporation with offices located at 1380 South Oxford Road, Atlanta, GA 30322, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said inventor, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional applications relating thereto, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I HEREBY covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to me respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 16 day of January, 2004

Harriet L. Robinson

Harriet L. Robinson

Harriet L. Robinson

STATE OF

ss.

COUNTY OF

On 1/16/04, before me, Gail J. McClure, personally appeared Harriet L. Robinson personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged to me that they executed the same in their authorized capacity(ies), and that by their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Gail J. McClure  
Notary Signature